



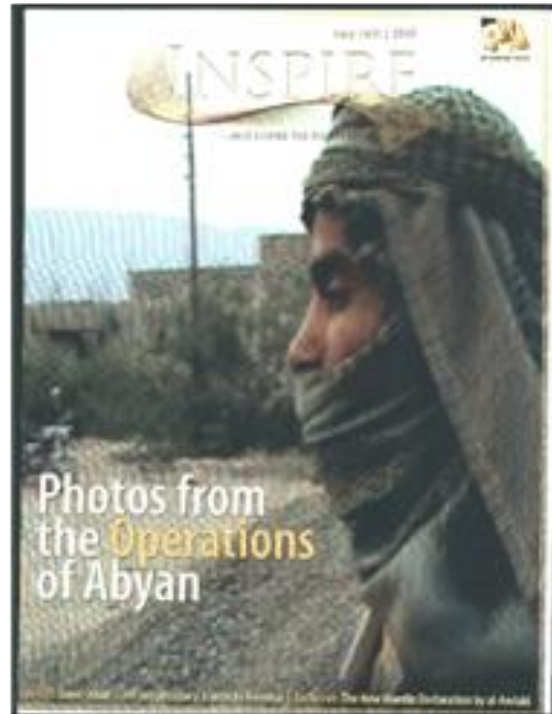
Countering Biological Threats and Enhancing Global Health Security

Andy Weber
Assistant Secretary of Defense
for Nuclear, Chemical, and Biological
Defense Programs

August 30, 2012

Why we are here: Emerging Biological Threats

Aum Shinrikyo,
Anthrax spraying



Fall 2010, Al-Qaeda's *Inspire* Magazine: calls on "brothers with degrees in microbiology or chemistry...to develop a weapon of mass destruction"

**U.S. WMD
Commission:
Biological attack more
likely than nuclear**

Tarnak Farms,
Al Qaeda training camp,
Kandahar, Afghanistan



The Threat is Global



“...biological weapons include any biological pathogens and associated toxins that could be deliberately misused to cause significant harm to humans or agricultural resources.”

Countering Biological Threats, National Academy of Sciences, 2009

Nexus of Public Health and Security



“... And we must come together to prevent, detect, and fight every kind of biological danger – whether it is a pandemic like H1N1, a terrorist threat, or a treatable disease.”

--President Obama's Address to the United Nations General Assembly, September 22, 2011

Health/Security Partnership: Critical to Countering Biological Threats

“...we view the risk of a bioweapons attack as both a serious national security challenge and a foreign policy priority. In an age when people and diseases cross borders with growing ease, bioweapons are a transnational threat.”

--Secretary of State Hillary Rodham Clinton, 2011



“The world is now at the start of the 2009 influenza pandemic...No previous pandemic has been detected so early or watched so closely, in real-time, right at the very beginning.”

--World Health Organization Director General Margaret Chan on H1N1, 2009



Global Partnership 2012 Biosecurity Deliverables

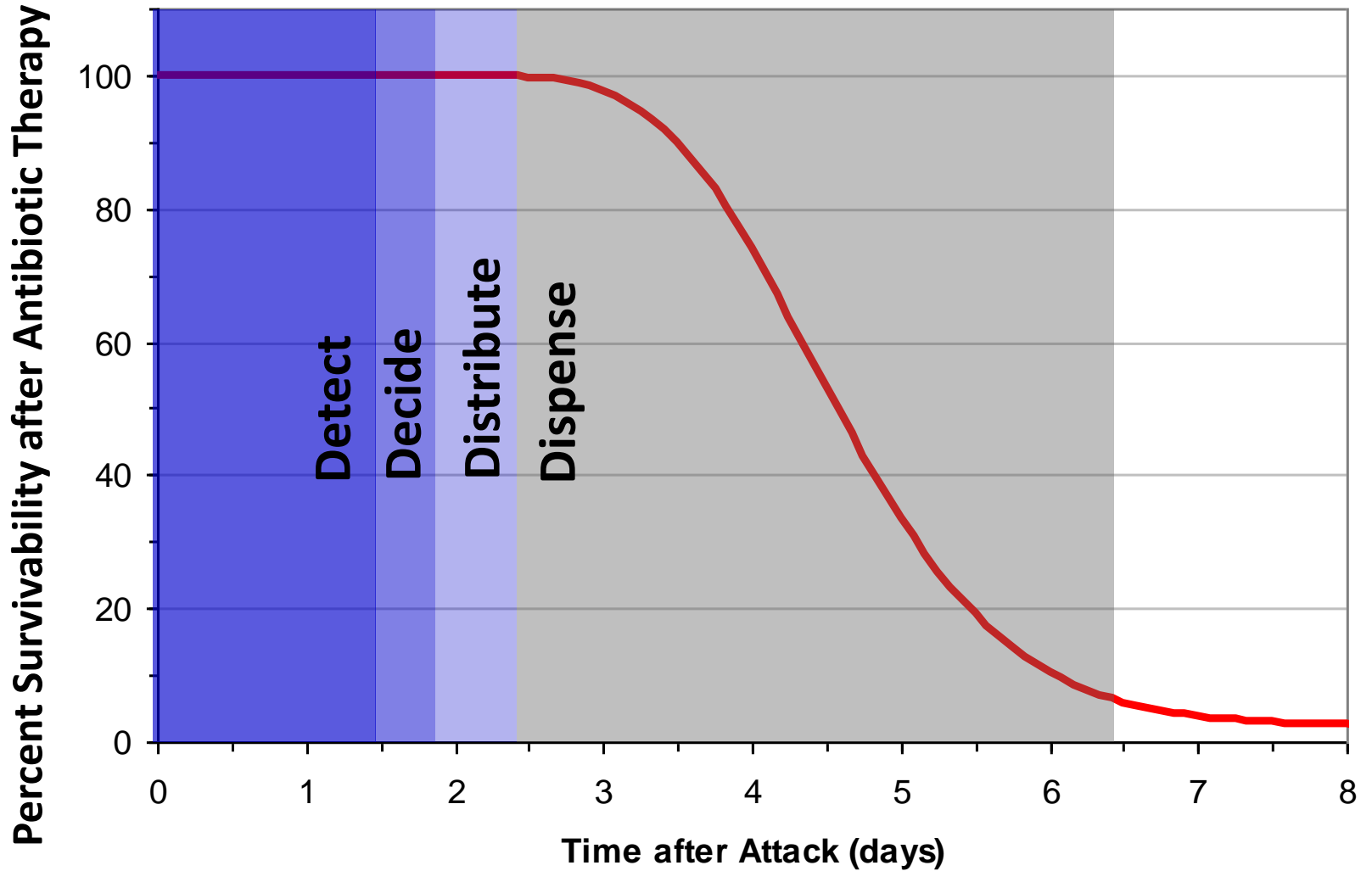


1. Secure and account for materials that represent biological proliferation risks.
2. Develop and maintain appropriate and effective measures to prevent, prepare for, and respond to the deliberate misuse of biological agents.
3. **Strengthen national and global networks to rapidly identify, confirm and respond to biological attacks.**
4. Reinforce and strengthen biological nonproliferation principles, practices and instruments.
5. Reduce proliferation risks through the advancement and promotion of safe and responsible conduct in the biological sciences.



GLOBAL BIO INITIATIVES PORTAL
GLOBAL PARTNERSHIP AGAINST THE SPREAD OF WEAPONS AND MATERIALS OF MASS DESTRUCTION

The Goal



Toward Real-Time, Situational Awareness



NATIONAL STRATEGY FOR BIOSURVEILLANCE

JULY 2012



HealthMap

Global Health, Local Knowledge

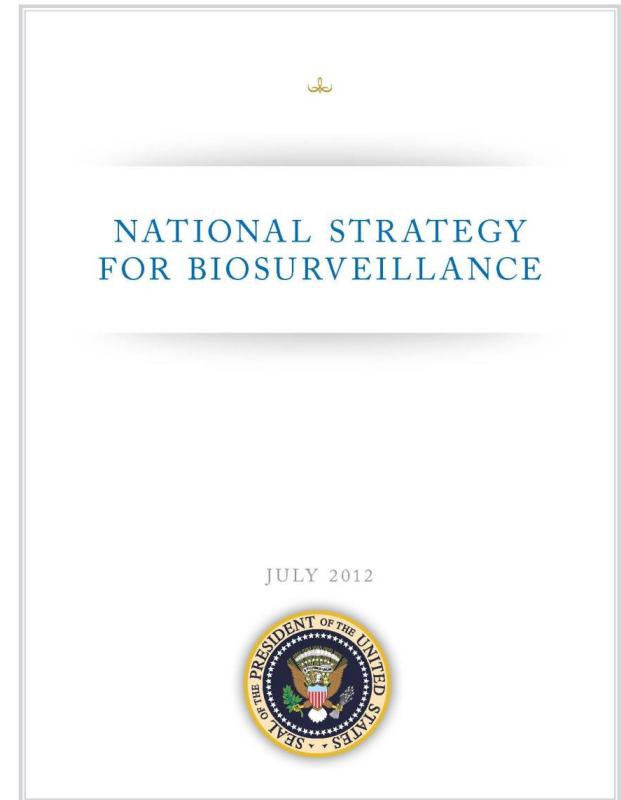


What is HealthMap?



Biosurveillance: Toward a Real-Time Approach

- Coordinated global data...and analysis that offers predictive modeling for disease events globally.
- Coordinated near real time data streams...and analysis for near real time biological situational awareness.
- Prevention, mitigation, or reduction of biological threats via predictive modeling, early detection, and warning.



"The threat of bioterrorism and other incidents affecting human health remain a clear and present danger. Early threat detection and sustained situational awareness are critical to save lives..."

Mapping the WMD Terrorism Supply Network



Materials
&
Expertise

Terrorism

WMD
Terrorism



This is Relevant Today: For Health and Security



“In March [2012], the United Nations Food and Agriculture Organization declared a ‘catastrophe,’ warning that the epidemic in Egypt was threatening human food supplies for all of the Middle East and North Africa.”

--The Atlantic on Egypt's FMD outbreak

“The Ministry of Health in Uganda has reported a cumulative number of 59 suspected cases of Ebola including 16 deaths. Ten (10) cases have been laboratory confirmed by the Uganda Virus Research Institute (UVRI) in Entebbe...”

--WHO Regional Office for Africa



Whole-of-Government, Multi-Hazard Approach Required



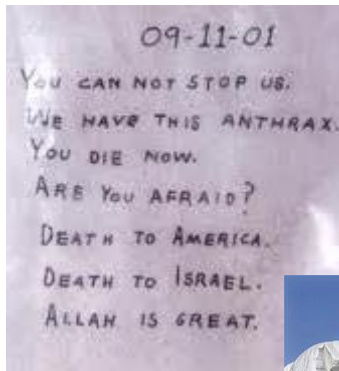
Cholera in Haiti, 2010

MASSACRE BY POISON GAS



Many die, 1,200
collapse in Tokyo
Tube attack

Sarin attack in Tokyo Subway, 1995



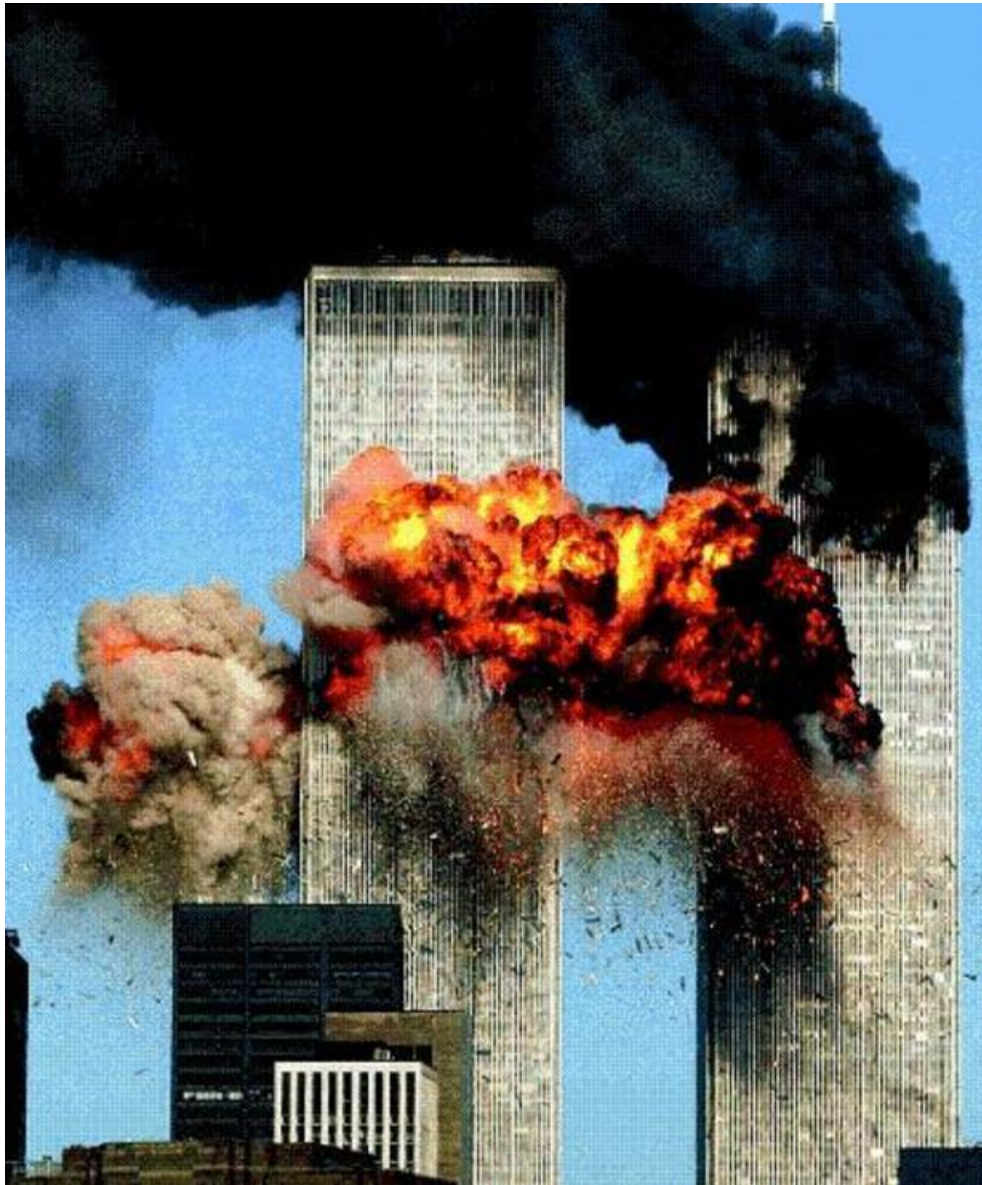
Anthrax attacks, 2001



Mumbai terrorist attacks, 2008



Fukushima Dai-ichi, following Tōhoku Earthquake and Tsunami, 2011



9/11 was “a failure of policy, management, capability and, above all, a failure of imagination.”

*--The 9/11 Commission
Chairman Thomas H. Kean
July 22, 2004*



Innovative Partnership: Global Partnership Against the Spread of Weapons and Materials of Mass Destruction

- \$20 billion, 2002-2012
- Extension beyond 2012 for global threats
- Priorities:
 - Nuclear and Radiological Security
 - **Biological Security**
 - Scientist Engagement
 - Capacity Building; UNSCR 1540



Expanding the health-security partnership: Imperative



Southeast Asia



Yemen



Kenya

